

Appl. No. 09/212,726

Amendments to the Claims

Claims 1-59 (Cancelled).

60. (Currently amended) A semiconductor processing method of depositing SiO_2 on a substrate comprising:

providing a substrate within a chemical vapor deposition reactor, the chemical vapor deposition reactor being a cold wall reactor;

feeding a gaseous silicon precursor into the chemical vapor deposition reactor;

feeding gaseous H_2O_2 into the chemical vapor deposition reactor; and

without feeding added ozone to the chemical vapor deposition reactor, utilizing the silicon precursor to directly deposit SiO_2 over a surface of the substrate at a rate of about 7000 Å per minute to form an as-deposited layer of SiO_2 , the SiO_2 being formed during the directly depositing.

61. (Previously presented) The semiconductor processing method of claim 60 wherein the gaseous H_2O_2 and the gaseous silicon precursor are fed into the chemical vapor deposition reactor independently.

62. (Previously presented) The semiconductor processing method of claim 60 wherein the gaseous H_2O_2 and the gaseous silicon precursor are fed into the chemical vapor deposition reactor simultaneously.

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63. (Previously presented) The semiconductor processing method of claim 60 wherein the gaseous H_2O_2 and the gaseous silicon precursor are comprised by a gaseous mixture which is fed into the chemical vapor deposition reactor.

64. (Previously presented) The semiconductor processing method of claim 60 further comprising feeding gaseous H_2O into the chemical vapor deposition reactor.

65. (Cancelled).

66. (Previously presented) The semiconductor processing method of claim 60 wherein the surface of the substrate comprises a high aspect ratio topology and wherein the layer is conformally deposited over the topology.

67. (Previously presented) The semiconductor processing method of claim 60, wherein the silicon precursor is selected from the group consisting of: tetraethoxysilane (TEOS), diethylsilane (DES), tetramethylcyclo-tetrasiloxane (TMCTS), fluorotriethoxysilane (FTCS), and fluorotrialkoxysilane (FTAS)

68. (Previously presented) The semiconductor processing method of claim 60 wherein the depositing is conducted at a processing temperature of about 400°C .

69. (Cancelled)

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70. (Previously presented) The semiconductor processing mixture of claim 63 wherein the gaseous mixture comprises from about 5% to about 15% by volume of H_2O_2 .